UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,821	11/20/2001	Ronald J. Vidal	1757.0260001	8685

35657 7590 02/16/2005

FAEGRE & BENSON LLP
PATENT DOCKETING
2200 WELLS FARGO CENTER
90 SOUTH 7TH STREET
MINNEAPOLIS, MN 55402-3901

EXAMINER	
SAFAVI, MICHAEL	

ART UNIT	PAPER NUMBER
3673	

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/988,821	VIDAL ET AL.	
	Examiner	Art Unit	
	M. Safavi	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/18/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on October 18, 2004 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> **The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.**

Claim16-21, 31, and 32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not appear to have originally disclosed "the plurality of ducts...[as including] at least two non-integral ducts" as is now recited in claim 16. Though the specification may state that the ducts can be "independent ducts" or "a plurality of sub-ducts" there appears no indication that the ducts are never "integral" within the disclosed system. By virtue of the instant deployment the ducts appear integral.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 and 13-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morishige in view of Peterson when considering the Federal Highway Administration report/publication "Prevention and Control of Highway Tunnel Fires", (hereinafter FHA).

Morishige discloses, Figs. 38, 42, and 44, for example, installing a plurality of communication ducts and cables 6036, (cables shown by circular 6036 with the ducts shown as that part of tunnel surrounding the cables 6036), extending from one onshore first point to an offshore point or "offshore termination point", at or along 6013 or any point of 6002 extending along the seabed, as well as from another onshore second point to an or the same offshore point, (see Fig. 38, for example). Sections 6002 and 6022 also constitute a plurality of communication ducts through which cables 6036 extend. However, Morishige appears silent as to the specific procedure of how the cables are run/connected along the assembly from one point to another.

Peterson discloses installation of a plurality of cables from one onshore first point to an offshore point, or "offshore termination point", as well as from another onshore second point to an or the same offshore point, col. 1, lines 37-47; col. 2, lines 16-23; col.

3, lines 57-65; 6, lines 36-43; and co. 6, line 57 to col. 7, line 6. The cables may be placed from onshore to offshore or from offshore to onshore. The offshore point, or "offshore termination point", can be an offshore platform and may extend several kilometers including up to and more than 50 kilometers from the shore, col. 3, lines 57-65. In both Morishige and Peterson the extension of the ducts and cables can be seen as spanning a shallow region as well as a relatively deep region of water, which would inherently include a continental shelf portion of an ocean floor. Peterson teaches splice connection of cables at a "sea end" or offshore point as by a cable joint, col. 7, lines 4-7 and col. 2, lines 19-22.

FHA publication discloses, or at least suggests, communication lines extending within tunnels including tunnels advancing through a body of water. See, for example, page 5 disclosing TV surveillance within the Hampton Roads Bridge Tunnel, Va.; or page 11 disclosing telephone lines along the Chesapeake Bay Bridge Tunnel; or page 13 and 14 disclosing telephone lines as well as fire alarm buttons and boxes within each of the Big Walker Tunnel, Va. and Caldecott Tunnel, Oakland, Ca.

To have extended the communication ducts and cables of Morishige from either onshore point to offshore point, or from offshore point to onshore point, for as much as at least 2 kilometers and up to about 20 kilometers from either onshore point to an offshore point as well as span a continental shelf in the process with the depth of an offshore point being at or less than 200 meters, thus covering all offshore intervals which would be included within a onshore to onshore span, (i.e., including all depths, lengths, and formations within the span of water), would have constituted an obvious

expedient to one having ordinary skill in the art at the time the invention was made in view of Peterson with Peterson disclosing the flexibility or adaptability of either direction of point to point installation, (i.e., Peterson teaches either onshore point to offshore point, or offshore point to onshore point). To have provided for splice connections anywhere along the span of the tunnel ducts 6002/6022, thus allowing for deployment of shortened, more manageable communication cable lines as well as to distribute the necessary utilities to the various corresponding components such as lights 6033 or monitoring cameras along the tunnel, would have constituted a further obvious expedient to one having ordinary skill in the art at the time the invention was made in view of Peterson's teachings at col. 7, lines 4-7 and col. 2, lines 19-22. With such a modification of connecting cables at one if not various points along the Morishige tunnel Morishige, as modified, would provide for first and second cables as well as third and fourth cables, 6036 of Fig. 44, with a first cable extending from a first point to an offshore point and connected to a second cable extending from a second point while a third cable extending from a point of location to an offshore point is connected to a fourth cable extending from another point of location. In other words, cables from opposite ends would constitute cables extending from various points onshore to a point or points offshore with ends of the cables being spliced or connected one to another. Providing for any type of "communication" cable including telephone, television or alarm cables, thus allowing use of such equipment when necessary or as a consistent monitoring arrangement, would have constituted a further obvious expedient to one

having ordinary skill in the art at the time the invention was made as taught by FHA publication.

Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over United Kingdom reference 2,357,944 in view of Peterson when considering any of Fischer or European reference 1,039,210 or Japanese reference 9-322371.

U.K. '944 discloses, Figs. 4 and 10, for example, installing a plurality of communication ducts and cables 6, 8, 44, etc. extending from one onshore first point to an offshore point or "offshore termination point", including to an offshore platform, as well as from another onshore second point to an or the same offshore point, (see Figs. 7 and 10, for example). However, U.K. '944 appears silent as to the specific procedure of how the cables are run/connected along the assembly from one point to another.

Peterson discloses installation of a plurality of cables from one onshore first point to an offshore point, or "offshore termination point", as well as from another onshore second point to an or the same offshore point, col. 1, lines 37-47; col. 2, lines 16-23; col. 3, lines 57-65; 6, lines 36-43; and co. 6, line 57 to col. 7, line 6. The cables may be placed from onshore to offshore or from offshore to onshore. The offshore point, or "offshore termination point", can be an offshore platform and may extend several kilometers including up to and more than 50 kilometers from the shore, col. 3, lines 57-65. In both Morishige and Peterson the extension of the ducts and cables can be seen as spanning a shallow region as well as a relatively deep region of water, which would inherently include a continental shelf portion of an ocean floor. Peterson teaches splice

connection of cables at a "sea end" or offshore point as by a cable joint, col. 7, lines 4-7 and col. 2, lines 19-22. Peterson further teaches burying cables within the undersea bed.

Each of Fischer, European reference '210, and Japanese reference '371 teach utilization of a conduit to lay cables within an underwater environment with Japanese reference '371 and European reference '210 teaching use of multiple conduits, Figs. 1 and 3-6 of Japanese reference '371 and Figs. 11, 13, and 15-20 of European reference '210 with each duct, (2 of European '944 and 5 or A, B, C of Japanese '371), constituting "separate and distinct conduits").

To have extended the communication ducts and cables of U.K. '944 from either onshore point to offshore point, or from offshore point to onshore point, for as much as at least 2 kilometers and up to about 20 kilometers from either onshore point to an offshore point as well as span a continental shelf in the process with the depth of an offshore point being at or less than 200 meters, thus covering all offshore intervals which would be included within a onshore to onshore span, (i.e., including all depths, lengths, and formations within the span of water), would have constituted an obvious expedient to one having ordinary skill in the art at the time the invention was made in view of Peterson with Peterson disclosing the flexibility or adaptability of either direction of point to point installation, (i.e., Peterson teaches either onshore point to offshore point, or offshore point to onshore point). U.K. '944 itself expresses the flexibility or adaptability of installation along and through various waterways.

To have provided for splice connections anywhere along the span of the ducts, thus allowing for deployment of shortened, more manageable communication cable lines, would have constituted a further obvious expedient to one having ordinary skill in the art at the time the invention was made in view of Peterson's teachings at col. 7, lines 4-7 and col. 2, lines 19-22. With regard to claim 22: European reference '944 teaches, (as in Figs. 1, 7, and 11), a plurality of cables extending from anyone of various points to an offshore location. Thus, European '944 teaches a first cable extending from a first point to an offshore point and connected to a second cable extending from a second point while a third cable extending from a point of location to an offshore point is connected to a fourth cable extending from another point of location.

Providing European '944 with ducts or conduits within which the cables are placed, thus assuring a well protected communication line, would have been a further obvious expedient to one having ordinary skill in the art at the time the invention was made as taught by any of Fischer, European reference '210, and Japanese reference '371. As stated above each of European reference '210, and Japanese reference '371 teach a plurality of ducts or conduits however, it would have been obvious to one having ordinary skill in the art to provide the resulting European '944 arrangement with any number of ducts or conduits to hold the communication cables since it is well known that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Further, it is well known that making an integral item or a one piece item into several pieces is of

no patentable consequence In re Dulberg, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Safavi whose telephone number is (703) 308-2481. The examiner can normally be reached on Mon.-Thur., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MICHAEL SAFAVI
PRIMARY EXAMINER
ART UNIT 354

M. Safavi
January 15, 2005